



HSC/EHSC - Series Spring Check Valve



Used in sanitary processes to prevent backflow of fluids.

The HSC-Series is for vertical applications and the EHSC-Series is for horizontal applications

These valves are certified clean-in-place for sizes 1" thru 4" and clean-out-of-place for sizes 1/2" and 3/4".

They are found in the food processing, beverage, dairy, personal care, winery, brewery, pet product and industrial markets.

**Sizes**

- 1/2" to 4"

**Features**

- Machined from solid bar
- Integrated spider design
- Standard O-ring and gasket seals

**Specifications**

- Standard connection: clamp
- Valve data
  - Maximum pressure: **145 PSI (10 bar)**
  - Maximum operating temperature: **200°F (93°C)**
  - Minimum operating temperature: **15°F (-9°C)**
- Materials of construction
  - Product contact metal components: 316L stainless steel
  - Non-product contact metal components: CF8
  - Product contact seals: EPDM, FKM
- Surface finish
  - Product contact metal components: Ra ≤ 32
- Cleaning method
  - CIP models: HSC and EHSC sizes 1" to 4"
  - COP models: HSC and EHSC sizes 1/2" to 3/4"



NOTE: Check valves should be sized for the application and not necessarily for the tubing size.

**Cracking Pressure Chart**

Size (in)	Cracking Pressure (PSIG)
1/2"	10.0
3/4"	4.0
1"	2.5
1-1/2"	1.0
2"	1.5
2-1/2"	0.8
3"	0.5
4"	0.4

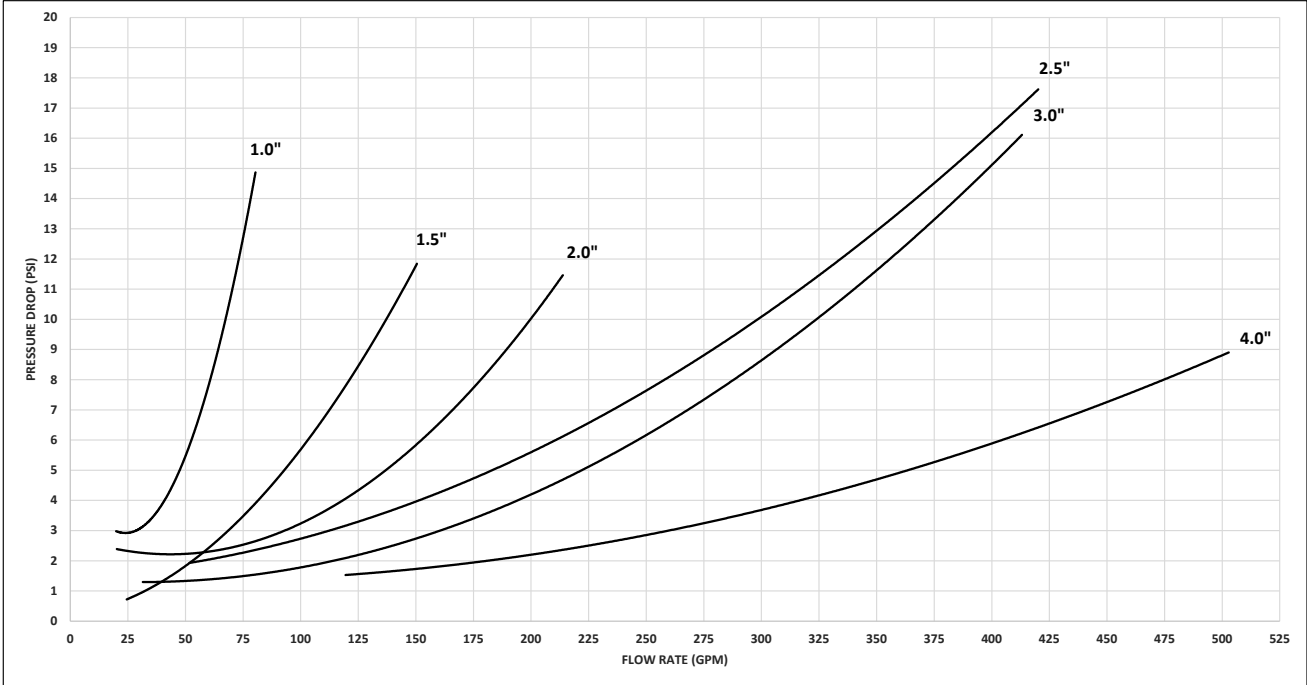
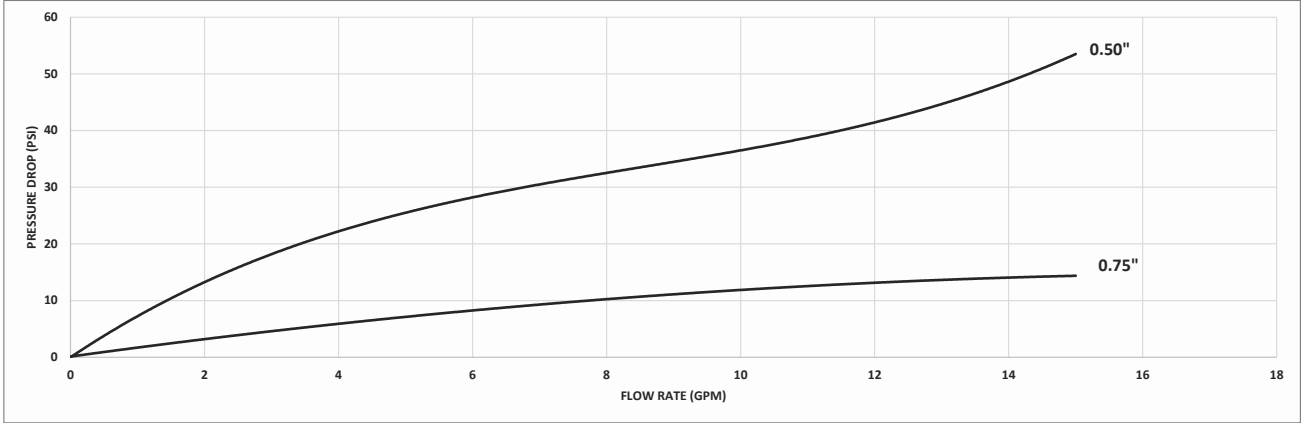
### HSC/EHSC-Series Spring Check Valve - Part Number Key

HSC/EHSC-Series Spring Check Valve Part Number Key Example: HSCE050CCA		Series	Elastomers	Size	End Connections*	Surface Finish	Overall Length
		HSC	E	050	CC	A	
<b>Series</b>	<b>Code</b>						
HSC (vertical application)	HSC	←					
EHSC (horizontal application)	EHSC						
<b>Elastomers</b>	<b>Code</b>						
EPDM	E	←					
FKM	V						
<b>Size</b>	<b>Code</b>						
1/2"	050	←					
3/4"	075						
1"	100						
1-1/2"	150						
2"	200						
2-1/2"	250						
3"	300						
4"	400						
<b>End Connections*</b>	<b>Code</b>						
Clamp	CC	←					
Weld	BB						
Female I-line	FF						
Male I-line	MM						
Threaded bevel	TT						
Plain bevel	PP						
Q-line	QQ						
Clamp x weld	CB						
For clamp x clamp or weld x weld end, 32 Ra I.D. surface finish and no other modifications, end part number here. For all other configurations, continue below.							
<b>Surface Finish</b>	<b>Code</b>						
32 Ra (I.D. mech. polish)	A	←					
20 Ra (I.D. mech. polish)	B						
15 Ra (I.D. mech. polish)	C						
25 Ra (I.D. mech. polish)	D						
15 Ra (I.D. electropolish)	E						
30 Ra (I.D. mech. polish)	F						
20 Ra (I.D. electropolish)	G						
<b>Overall Length</b>	<b>Code</b>						
Standard	blank	←					
Custom**	###						

\*Lower body connection listed first.

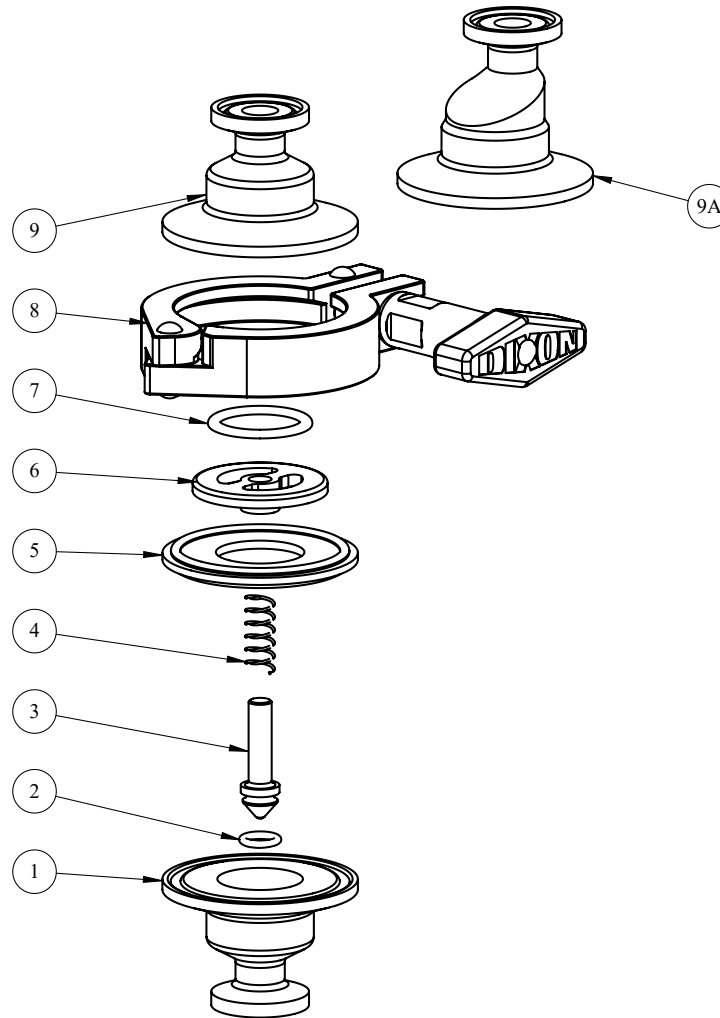
\*\*Enter overall length number, no decimals (e.g. 575 = 5.75 in).

### HSC/EHSC-Series Spring Check Valve - Pressure Drop Charts



## HSC/EHSC-Series Spring Check Valve - Bill of Materials

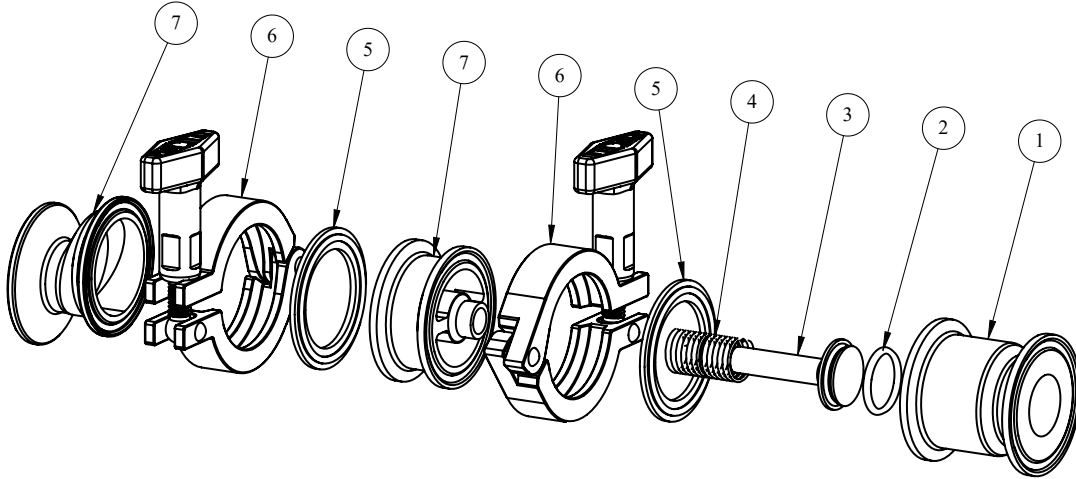
1/2" to 3/4"



Item	Size	Part #	Description	Material	Qty.	
					HSC	EHSC
1	1/2"	HSC-LB050	lower body, clamp	316L SS	1	1
	3/4"	HSC-LB075	lower body, clamp	316L SS	1	1
2	both	see repair kits	plunger O-ring	see repair kits	1	1
3	1/2"	HSC-P050	plunger	316L SS	1	1
	3/4"	HSC-P075	plunger	316L SS	1	1
4	1/2"	HSC-SP050	spring	316L SS	1	1
	3/4"	HSC-SP075	spring	316L SS	1	1
5	both	see repair kits	plunger O-ring	see repair kits	1	1
6	1/2"	HSC-S050	spider	316L SS	1	1
	3/4"	HSC-S075	spider	316L SS	1	1
7	both	see repair kits	spider O-ring	see repair kits	1	1
8	both	13MHHM100-150	clamp	CF8	1	1
9	1/2"	HSC-UB050	concentric upper body, clamp	316L SS	1	-
	3/4"	HSC-UB075	concentric upper body, clamp	316L SS	1	-
9A	1/2"	EHSC-UB050	eccentric upper body, clamp	316L SS	-	1
	3/4"	EHSC-UB075	eccentric upper body, clamp	316L SS	-	1

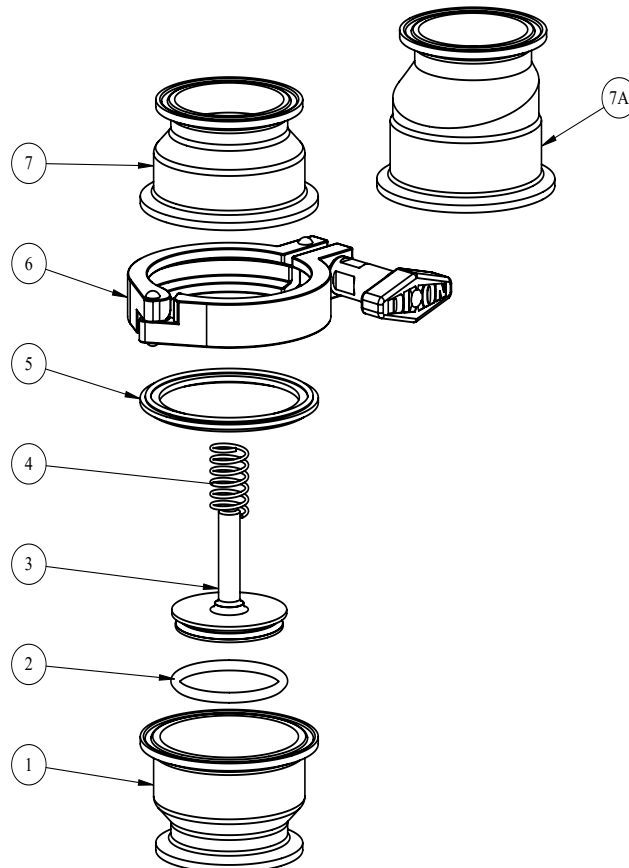
**EHSC-Series Spring Check Valve - Bill of Materials**

1"



Item	Part #	Description	Material	Qty.
1	HSC-LB100	lower body, clamp	316L SS	1
2	see repair kits	plunger O-ring	see repair kits	1
3	HSC-P100	plunger	316L SS	1
4	HSC-SP100	spring	316L SS	1
5	see repair kits	body gasket	see repair kits	2
6	13MHHM100-150	clamp	CF8	2
7	EHSC-UB100	2 pc upper body, clamp	316L SS	1

**1" to 4" HSC, 1-1/2" to 4" EHSC**

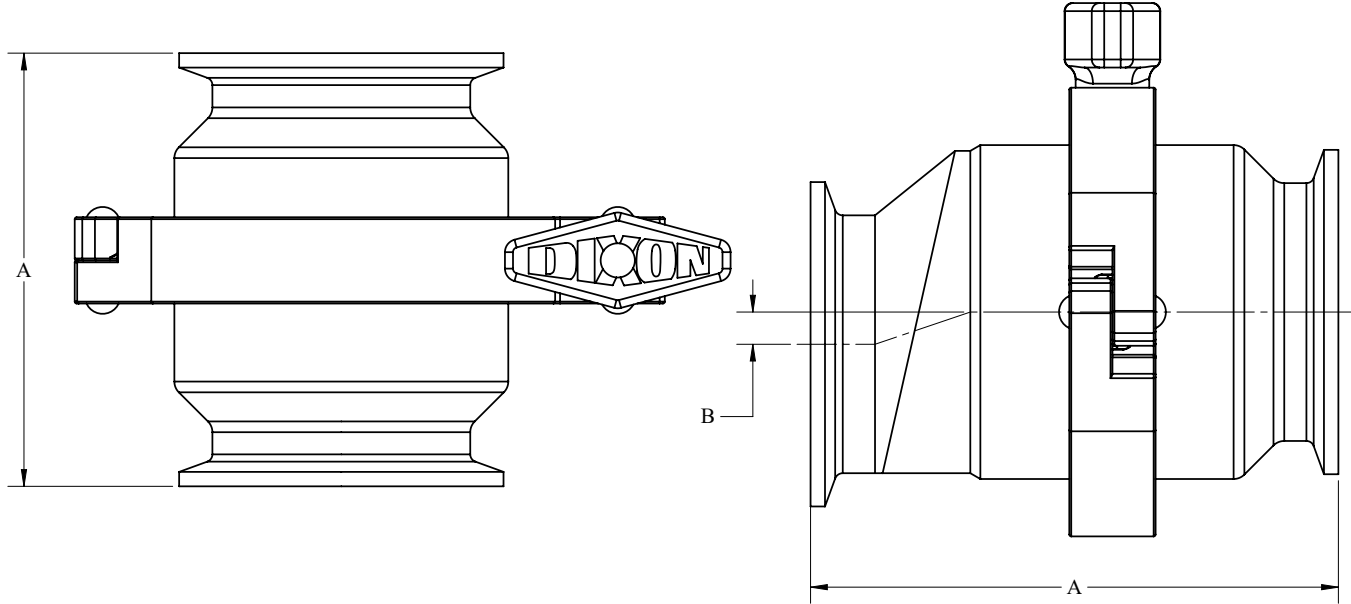


## HSC/EHSC-Series Spring Check Valve - Bill of Materials

## 1" to 4" HSC, 1-1/2" to 4" EHSC

Item	Size	Part #	Description	Material	Qty.	
					HSC	EHSC
1	1"	HSC-LB100	lower body, clamp	316L SS	1	-
	1-1/2"	HSC-LB150	lower body, clamp	316L SS	1	1
	2"	HSC-LB200	lower body, clamp	316L SS	1	1
	2-1/2"	HSC-LB250	lower body, clamp	316L SS	1	1
	3"	HSC-LB300	lower body, clamp	316L SS	1	1
2	4"	HSC-LB400	lower body, clamp	316L SS	1	1
2	all	see repair kits	plunger O-ring	see repair kits	1	1
3	1"	HSC-P100	plunger	316L SS	1	-
	1-1/2"	HSC-P150	plunger	316L SS	1	1
	2"	HSC-P200	plunger	316L SS	1	1
	2-1/2"	HSC-P250	plunger	316L SS	1	1
	3"	HSC-P300	plunger	316L SS	1	1
3	4"	HSC-P400	plunger	316L SS	1	1
4	1'	HSC-SP100	spring	316L SS	1	-
	1-1/2"	HSC-SP150	spring	316L SS	1	1
	2"	HSC-SP200	spring	316L SS	1	1
	2-1/2"	HSC-SP250	spring	316L SS	1	1
	3"	HSC-SP300	spring	316L SS	1	1
4	4"	HSC-SP400	spring	316L SS	1	1
5	all	see repair kits	plunger O-ring	see repair kits	1	1
6	1"	13MHHM100-150	clamp	316L SS	1	-
	1-1/2"	13MHHM200	clamp	316L SS	1	1
	2"	13MHHM250	clamp	316L SS	1	1
	2-1/2"	13MHHV300	clamp	316L SS	1	1
	3"	13MHHM400	clamp	316L SS	1	1
6	4"	13MHHM500	clamp	316L SS	1	1
7	1"	HSC-UB100	concentric upper body, clamp	316L SS	1	-
	1-1/2"	HSC-UB150	concentric upper body, clamp	316L SS	1	-
	2"	HSC-UB200	concentric upper body, clamp	316L SS	1	-
	2-1/2"	HSC-UB250	concentric upper body, clamp	316L SS	1	-
	3"	HSC-UB300	concentric upper body, clamp	316L SS	1	-
7	4"	HSC-UB400	concentric upper body, clamp	316L SS	1	-
7A	1-1/2"	EHSC-UB150	eccentric upper body, clamp	316L SS	-	1
	2"	EHSC-UB200	eccentric upper body, clamp	316L SS	-	1
	2-1/2"	EHSC-UB250	eccentric upper body, clamp	316L SS	-	1
	3"	EHSC-UB300	eccentric upper body, clamp	316L SS	-	1
7A	4"	EHSC-UB400	eccentric upper body, clamp	316L SS	-	1

HSC/EHSC-Series Spring Check Valve - Dimensions

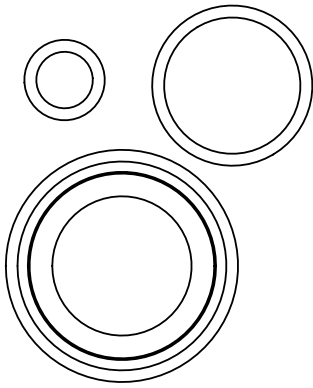


Size	HSC		EHSC	
		A		B
1/2"	2.7		3.1	0.3
3/4"	2.7		3.1	0.3
1"	3.3		4.0	0.3
1-1/2"	3.4		3.6	0.3
2"	3.4		4.1	0.3
2-1/2"	3.4		4.0	0.4
3"	3.4		4.0	0.4
4"	4.1		4.7	0.4

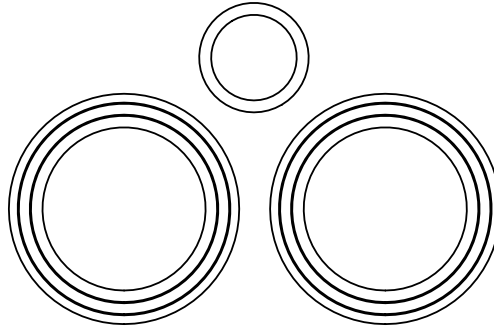


## HSC/EHSC-Series Spring Check Valve - Repair Kits

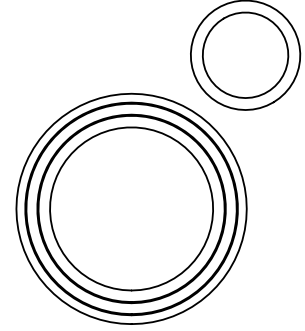
1/2" & 3/4" HSC/EHSC



1" EHSC



1" - 4" HSC & 1-1/2" - 4" EHSC



Series	Elastomer	Size	Part #
HSC	EPDM	1/2"	HSC-RKE050
		3/4"	HSC-RKE075
		1"	HSC-RKE100
		1-1/2"	HSC-RKE150
		2"	HSC-RKE200
		2-1/2"	HSC-RKE250
		3"	HSC-RKE300
		4"	HSC-RKE400
	FKM	1/2"	HSC-RKV050
		3/4"	HSC-RKV075
		1"	HSC-RKV100
		1-1/2"	HSC-RKV150
		2"	HSC-RKV200
		2-1/2"	HSC-RKV250
		3"	HSC-RKV300
		4"	HSC-RKV400
EHSC	EPDM	1/2"	EHSC-RKE050
		3/4"	EHSC-RKE075
		1"	EHSC-RKE100
		1-1/2"	EHSC-RKE150
		2"	EHSC-RKE200
		2-1/2"	EHSC-RKE250
		3"	EHSC-RKE300
		4"	EHSC-RKE400
	FKM	1/2"	EHSC-RKV050
		3/4"	EHSC-RKV075
		1"	EHSC-RKV100
		1-1/2"	EHSC-RKV150
		2"	EHSC-RKV200
		2-1/2"	EHSC-RKV250
		3"	EHSC-RKV300
		4"	EHSC-RKV400



## Limited Warranty

DIXON VALVE & COUPLING COMPANY, LLC (herein called "Dixon") warrants the products described herein and manufactured by Dixon to be free from defects in material and workmanship for a period of one (1) year from date of shipment by Dixon under normal use and service. Its sole obligation under this warranty being limited to repairing or replacing, as hereinafter provided, at its option any product found to Dixon's satisfaction to be defective upon examination by it, provided that such product shall be returned for inspection to Dixon's factory within three (3) months after discovery of the defect. The repair or replacement of defective products will be made without charge for parts or labor. This warranty shall not apply to: (a) parts or products not manufactured by Dixon, the warranty of such items being limited to the actual warranty extended to Dixon by its supplier; (b) any product that has been subject to abuse, negligence, accident, or misapplication; (c) any product altered or repaired by others than Dixon; and (d) normal maintenance services and the replacement of service items (such as washers, gaskets, and lubricants) made in connection with such services. To the extent permitted by law, this limited warranty shall extend only to the buyer and any other person reasonably expected to use or consume the goods who is injured in person by any breach of the warranty. No action may be brought against Dixon for an alleged breach of warranty unless such action is instituted within one (1) year from the date the cause of action accrues. This limited warranty shall be construed and enforced to the fullest extent allowable by applicable law.

Other than the obligation of Dixon set forth herein, Dixon disclaims all warranties, express or implied, including but not limited to any implied warranties of merchantability or fitness for a particular purpose, and any other obligation or liability. The foregoing constitutes Dixon's sole obligation with respect to damages, whether direct, incidental, or consequential, resulting from the use or performance of the product.

Some products and sizes may be discontinued when stock is depleted or may require a minimum quantity for ordering.

## Limits of Liability

This brochure is intended as a product offering. It is not intended to be a user or technical manual. Information in this brochure is subject to change without notice. All users and distributors of products sold through this brochure should contact Dixon with questions of use, compatibilities, coupling procedures, and life of product. Our full-time engineering and test staff are always available to recommend uses and to assist distributors and users with any questions.



## Safety



Safety logos, which appear throughout our catalog, are used as a reminder that the user should carefully review for the appropriateness of the product for the media, application, and environment in which it will be used.

NOTE: Because of the health hazards associated with contamination and lead content in drinking water systems, Dixon couplings, unless otherwise specifically approved, are not recommended for potable water service and should not be used in applications where drinking water will contact the wetted surfaces of the coupling.

All Dixon products are shipped in cartons with the following warning:

**"WARNING:** This product contains lead, a chemical known to the State of California to cause cancer and birth defects or other reproductive harm."

## Trademark

Delrin® and Zytel® are registered trademarks of E.I. duPont Nemours and Company.

Kalrez® is a registered trademark of DuPont Dow Elastomers.

All other trademarks appearing in the Dixon illustrated product list are the property of their respective owners.

## Copyright

Copyright © 2023 by Dixon Valve & Coupling Company, LLC

All rights reserved. This book is copyrighted material. Use, reproduction or copying of it by anyone other than Dixon® is strictly forbidden without its express written consent.

NOTE: Reasonable care has been taken in preparing this catalog. Dixon Valve & Coupling Company, LLC reserves the right to make corrections.

